

RECTIFICATIONS IN THE NOMENCLATURE OF SOME INDO-PACIFIC LITTORINIDAE—II¹

Joseph Rosewater and Dietrich Kadolsky

Abstract.—*Trochus quadricinctus* Mühlfeld, 1824, a previously overlooked senior synonym, has priority over *Littorina leucosticta* Philippi, 1847. *Nodilittorina* (*Granulilittorina*) *hawaiiensis*, nomen novum, replaces the junior primary homonym, *Littorina picta* Philippi, 1846, non *Littorina obtusata picta* Menke, 1845. *Littorina rubra* Anton, 1838, formerly considered unrecognizable, is placed in synonymy with *Nodilittorina* (*Nodilittorina*) *pyramidalis* Quoy and Gaimard, 1833.

Introduction

Need for the following nomenclatorial changes has come to light subsequent to the classification of Indo-Pacific Littorinidae, subfamily Littoriniinae, proposed by Rosewater (1970).

I. *Nodilittorina* (*Granulilittorina*) *quadricincta* (Mühlfeld, 1824)

Trochus quadricinctus Mühlfeld, 1824:210, pl. 7, fig. 6a, b [lectotype figure; original locality, East Indies Sea, here restricted to Bombay, India]; not *Trochus quadricinctus* S. V. Wood, 1842:531 [nomen nudum].

Littorina leucosticta Philippi, 1847:162, pl. 3, fig. 11 [lectotype figure; Bombay, India]; Rosewater, 1970:497, pl. 384, figs. 1-5; pl. 385.

Melaraphe subgranosa Dunker, 1866:913 [type in Berlin Museum?; Madras [India]]; Frauenfeld, 1867:9, pl. 1, figs. 10a, b [not fig. 10c which = *G. millegrana* (Philippi, 1846)].

Littorina leucostica 'Philippi', Tryon, 1887:299 [error for *L. leucosticta* Philippi, 1847].

Original description.—One of us (Kadolsky) has translated into English Mühlfeld's description of *Trochus quadricinctus* which, together with his illustrations, gives an excellent impression of the species identity:

Trochus quadricinctus. The four-ridged top snail. The egg-shaped, bulgy, weakly wrinkled, transversely keeled, brown-greenish, at the base white shell has a very wide, almost round aperture.

¹ The first paper by this title appeared in Proceedings of the Biological Society of Washington 92(4), 1979, pp. 773-782.

The 4.5 lines [9.8 mm] long and 3–3.5 lines [6.5–7.6 mm] wide snail is longitudinally delicately wrinkled and transversely fairly narrowly striated and studded with elevated ridges or edges. Of the 4 whorls with which the shell is provided, the first and largest, at the base white one, has 4; the second has only two; and the third has only one edge which appears to be embellished by white and brown alternating elongate spots, like the other (edges). The wide aperture is entire; it has a slightly sickle-shaped, widely reflected and grown-on brown colored columella lip and a toothed, white and brown spotted shell lip. The throat and the interior is brown. The whereabouts are the East Indian Sea.

Remarks.—Rosewater (1970) overlooked the earlier name, *Trochus quadricinctus* Mühlfeld, when constructing the synonymy of this species. So far as we can determine the name *quadricinctus* has not been used by malacologists in primary zoological literature since it was introduced. The name it supercedes, *Litorina leucosticta* Philippi, is nearly as obscure, having been recognized only since Rosewater (ibid.) used it; consequently, in our opinion *T. quadricinctus* should be allowed priority.

Trochus quadricinctus is the nominate subspecies of a group of three inhabiting southeast Asia and the western Pacific and some south Pacific islands: *Nodilittorina* (*Granulilittorina*) *quadricincta quadricincta* (Mühlfeld, 1824). This change will also affect the nomenclature of two other nominal species, which are subspecies of the *Nodilittorina quadricincta* species group, as follows: *Nodilittorina leucosticta biangulata* (von Martens, 1897) becomes *Nodilittorina quadricincta biangulata* (von Martens, 1897) (see Rosewater ibid., p. 499); and *Nodilittorina leucosticta feejeensis* (Reeve, 1857) becomes *Nodilittorina quadricincta feejeensis* (Reeve, 1857) (see Rosewater ibid., p. 500).

II. *Nodilittorina* (*Granulilittorina*) *hawaiiensis*, nomen novum

Littorina picta Philippi, 1846:139 (lectotype in British Museum (N.H.); ad insulas Sandwich); as *Litorina picta* Philippi, 1847:166 [not *L. picta marmorata*, ibid., p. 167, pl. 3, fig. 26, from Luzon, Philippines = *G. milligrana* Philippi]; Rosewater, 1970:503; not *Litorina obtusata picta* Menke, 1845:57 (Helgoland); Dautzenberg and Fischer 1915, p. 91.

The new name, *Nodilittorina* (*Granulilittorina*) *hawaiiensis*, is proposed here as a replacement name for the endemic Hawaiian *Nodilittorina*, *Littorina picta* Philippi, 1846, because as a junior primary homonym of *L. obtusata picta* Menke, 1845, it must be rejected permanently. Nearly all authors subsequent to Menke either have overlooked his “*picta*” or ignored it, including Küster and Weinkauff (1853–1882), Weinkauff (1883), Tryon (1887), and Sherborn (1902–1933). Both Whipple (1965) and Rosewater

(1970) overlooked the name in their monographs. The type-specimen of *Nodilittorina hawaiiensis* is the lectotype of *Littorina picta* Philippi selected by Rosewater (1970:504).

III. *Nodilittorina (Nodilittorina) pyramidalis* (Quoy and Gaimard, 1833)

Littorina rubra Anton, 1838:53, no. 1923 (no locality); not *Littorina scabra rubra* Philippi, 1847:222, nor *Littorina angulifera rubra*, *ibid.*: 224.

Original description.—One of us (Kadolsky) has translated into English Anton's brief description:

Littorina rubra. Acutely oval, four flattened whorls, the lowermost with two rows of completely separated little pearls, the 2nd and 3rd whorl with one row (each); brown-red, tubercles white; non-umbilicate; columella very broad; aperture ovate. Width 1.5''' [3.3 mm], height 2''' [4.4 mm].

Remarks.—This species name either has been ignored or listed as a questionable entity because it was not figured originally and there is no known type-specimen (see Tryon 1887:260). Anton's reference to an acutely oval shell with two rows of white nodules ("pearls") on the body whorl, and one row each on spiral whorls, clearly narrows the identity to *Nodilittorina pyramidalis* under which *Littorina rubra* Anton, 1838, should be listed as a junior synonym.

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(JR) Division of Mollusks, Department of Invertebrate Zoology, National Museum of Natural History, Washington, D.C. 20560 U.S.A.; (DK) 55 Carshalton Grove, Sutton, Surrey, United Kingdom.